

What is claimed is:

1. A method of producing a transformed plant having improved rooting efficiency and/or prolonged vase life, comprising transforming a plant using a gene wherein a DNA encoding a protein that binds to a stress-responsive element contained in a stress-responsive promoter and regulates the transcription of a gene located downstream of the element is ligated downstream of the stress-responsive promoter.
2. The method of producing a transformed plant of claim 1, wherein the stress-responsive promoter is at least one promoter selected from the group consisting of rd29A gene promoter, rd29B gene promoter, rd17 gene promoter, rd22 gene promoter, DREB1A gene promoter, cor6.6 gene promoter, cor15a gene promoter, erd1 gene promoter, and kin1 gene promoter.
3. The method of producing a transformed plant of claim 1, wherein the DNA encoding a protein that binds to a stress-responsive element and regulates the transcription of a gene located downstream of the element is at least one gene selected from the group consisting of DREB1A gene, DREB1B gene, DREB1C gene, DREB1D gene, DREB1E gene, DREB1F gene, DREB2A gene, DREB2B gene, DREB2C gene, DREB2D gene, DREB2E gene, DREB2F gene, DREB2G gene, and DREB2H gene.
4. The method of producing a transformed plant of claim 1, wherein the DNA encoding a protein that binds to a stress-responsive element and regulates the transcription of a gene located downstream of the element is at least one DNA selected from the group consisting of:
  - (a) a DNA comprising a nucleotide sequence derived from the nucleotide sequence of a DNA of at least one of DREB1A gene, DREB1B gene, DREB1C gene, DREB1D gene, DREB1E gene, DREB1F gene, DREB2A gene, DREB2B gene, DREB2C gene, DREB2D gene, DREB2E gene, DREB2F gene, DREB2G gene, and DREB2H gene by deletion, substitution, addition, or insertion of one or several nucleotides, and encoding a protein having activity to bind to a stress-responsive

element so as to regulate the transcription of a gene located downstream of the element;

(b) a DNA comprising a nucleotide sequence having at least 80% or more homology with the nucleotide sequence of a DNA of at least one of DREB1A gene, DREB1B gene, DREB1C gene, DREB1D gene, DREB1E gene, DREB1F gene, DREB2A gene, DREB2B gene, DREB2C gene, DREB2D gene, DREB2E gene, DREB2F gene, DREB2G gene, and DREB2H gene, and encoding a protein having activity to bind to a stress-responsive element and regulate the transcription of a gene located downstream of the element; and

(c) a DNA hybridizing under stringent conditions to a DNA complementary to a DNA of at least one of DREB1A gene, DREB1B gene, DREB1C gene, DREB1D gene, DREB1E gene, DREB1F gene, DREB2A gene, DREB2B gene, DREB2C gene, DREB2D gene, DREB2E gene, DREB2F gene, DREB2G gene, and DREB2H gene, and encoding a protein having activity to bind to a stress-responsive element and regulate the transcription of a gene located downstream of the element.

5. The method of producing a transformed plant of claim 1, wherein the DNA of a stress-responsive promoter is at least one DNA selected from the group consisting of:

(a) a DNA comprising a nucleotide sequence derived from the nucleotide sequence of a DNA of at least one of rd29A gene promoter, rd29B gene promoter, rd17 gene promoter, rd22 gene promoter, DREB1A gene promoter, cor6.6 gene promoter, cor15a gene promoter, erd1 gene promoter, and kin1 gene promoter by deletion, substitution, addition, or insertion of one or several nucleotides, and having activity as the DNA of the stress-responsive promoter;

(b) a DNA comprising a nucleotide sequence having at least 80% or more homology with the nucleotide sequence of a DNA of at least one of rd29A gene promoter, rd29B gene promoter, rd17 gene promoter, rd22 gene promoter, DREB1A gene promoter, cor6.6 gene promoter, cor15a gene promoter, erd1 gene promoter, and kin1 gene promoter, and having activity as the DNA of the

stress-responsive promoter; and

(c) a DNA hybridizing under stringent conditions to a DNA complementary to a DNA of at least one of rd29A gene promoter, rd29B gene promoter, rd17 gene promoter, rd22 gene promoter, DREB1A gene promoter, cor6.6 gene promoter, cor15a gene promoter, erd1 gene promoter, and kin1 gene promoter, and having activity as the DNA of the stress-responsive promoter.

6. A transformed plant having improved rooting efficiency and/or prolonged vase life, comprising a gene wherein a DNA encoding a protein that binds to a stress-responsive element contained in a stress-responsive promoter and regulates the transcription of a gene located downstream of the element is ligated downstream of the stress-responsive promoter.

7. The transformed plant of claim 6, wherein the stress-responsive promoter is at least one promoter selected from the group consisting of rd29A gene promoter, rd29B gene promoter, rd17 gene promoter, rd22 gene promoter, DREB1A gene promoter, cor6.6 gene promoter, cor15a gene promoter, erd1 gene promoter, and kin1 gene promoter.

8. The transformed plant of claim 6, wherein the DNA encoding a protein that binds to a stress-responsive element so as to regulate the transcription of a gene located downstream of the element is at least one gene selected from the group consisting of DREB1A gene, DREB1B gene, DREB1C gene, DREB1D gene, DREB1E gene, DREB1F gene, DREB2A gene, DREB2B gene, DREB2C gene, DREB2D gene, DREB2E gene, DREB2F gene, DREB2G gene, and DREB2H gene.

9. The transformed plant of claim 6, wherein the DNA encoding a protein that binds to a stress-responsive element and regulates the transcription of a gene located downstream of the element is at least one DNA selected from the group consisting of:

(a) a DNA comprising a nucleotide sequence derived from the nucleotide sequence of a DNA of at least one of DREB1A gene, DREB1B gene, DREB1C gene, DREB1D gene, DREB1E gene, DREB1F gene, DREB2A gene, DREB2B gene,

DREB2C gene, DREB2D gene, DREB2E gene, DREB2F gene, DREB2G gene, and DREB2H gene by deletion, substitution, addition, or insertion of one or several nucleotides, and encoding a protein having activity to bind to a stress-responsive element and regulate the transcription of a gene located downstream of the element;

- (b) a DNA comprising a nucleotide sequence having at least 80% or more homology with the nucleotide sequence of a DNA of at least one of DREB1A gene, DREB1B gene, DREB1C gene, DREB1D gene, DREB1E gene, DREB1F gene, DREB2A gene, DREB2B gene, DREB2C gene, DREB2D gene, DREB2E gene, DREB2F gene, DREB2G gene, and DREB2H gene, and encoding a protein having activity to bind to a stress-responsive element and regulate the transcription of a gene located downstream of the element; and
- (c) a DNA hybridizing under stringent conditions to a DNA complementary to a DNA of at least one of DREB1A gene, DREB1B gene, DREB1C gene, DREB1D gene, DREB1E gene, DREB1F gene, DREB2A gene, DREB2B gene, DREB2C gene, DREB2D gene, DREB2E gene, DREB2F gene, DREB2G gene, and DREB2H gene, and encoding a protein having activity to bind to a stress-responsive element and regulate the transcription of a gene located downstream of the element.

10. The transformed plant of claim 6, wherein the DNA of a stress-responsive promoter is at least one DNA selected from the group consisting of:

- (a) a DNA comprising a nucleotide sequence derived from the nucleotide sequence of a DNA of at least one of rd29A gene promoter, rd29B gene promoter, rd17 gene promoter, rd22 gene promoter, DREB1A gene promoter, cor6.6 gene promoter, cor15a gene promoter, erd1 gene promoter, and kin1 gene promoter by deletion, substitution, addition, or insertion of one or several nucleotides, and having activity as the DNA of the stress-responsive promoter;
- (b) a DNA comprising a nucleotide sequence having at least 80% or more homology with the nucleotide sequence of a DNA of at least one of rd29A gene promoter, rd29B gene promoter, rd17 gene promoter, rd22 gene promoter,

DREB1A gene promoter, cor6.6 gene promoter, cor15a gene promoter, erd1 gene promoter, and kin1 gene promoter, and having activity as the DNA of the stress-responsive promoter; and

(c) a DNA hybridizing under stringent conditions to a DNA complementary to a DNA of at least one of rd29A gene promoter, rd29B gene promoter, rd17 gene promoter, rd22 gene promoter, DREB1A gene promoter, cor6.6 gene promoter, cor15a gene promoter, erd1 gene promoter, and kin1 gene promoter, and having activity as the DNA of the stress-responsive promoter.